## Amendment to the Claims

1.(Currently Amended) An apparatus for plasma implantation, comprising:

a vacuum container defining a vacuum chamber therein;

a table provided in the chamber for supporting a substrate to which an impurity is implanted;

a plasma generating element provided outside the chamber;

a first power source for applying a first high frequency electric power to the element to form a plasma in the chamber;

a second power source for applying a second high frequency electric power to the table;

a first detector for detecting a condition of the plasma;

a second detector for detecting a voltage or a current in the table; and

a controller for controlling at least one of the first and second high frequency electric power sources according to the condition of the plasma detected by the first detector ~~and/or~~ and the voltage or the current detected by the second detector, thereby controlling an implantation concentration of the impurity to be implanted.

2. (Currently Amended) The apparatus of claim 1, wherein the first detector is capable of detecting and measuring an amount of

light emitted from the plasma in the chamber ~~detects the condition using a method selected from an optical emission spectroscopy, a single probe method, a double probe method, a triple probe method, a laser induced fluorescence method, an infrared laser absorption spectroscopy, a vacuum ultra violet absorption spectroscopy, a laser scattering method and a quadrupole mass spectroscopy~~.

3.(Currently Amended) An apparatus for plasma implantation, comprising:

a vacuum container defining a vacuum chamber therein;

a table provided in the chamber for supporting a substrate to which an impurity is implanted;

a plasma generating element provided outside the chamber;

a first power source for applying a first high frequency electric power to the element to form a plasma in the chamber;

a second power source for applying a second high frequency electric power to the table;

an electrode provided adjacent the table and connected through a capacitor to the table;

a first detector for detecting a condition of the plasma;

a second detector for detecting a voltage or a current in the electrode; and

a controller for controlling at least one of the first and

second high frequency electric power sources according to the condition of the plasma detected by the first detector ~~and/or~~and the voltage or the current detected by the second detector, thereby controlling an implantation concentration of the impurity to be implanted.

4. (Currently Amended) The apparatus of claim 3, wherein the first detector is capable of detecting and measuring an amount of light emitted from the plasma in the vacuum chamber ~~detects the condition using a method selected from an optical emission spectroscopy, a single probe method, a double probe method, a triple probe method, a laser induced fluorescence method, an infrared laser absorption spectroscopy, a vacuum ultra violet absorption spectroscopy, a laser scattering method and a quadrupole mass spectroscopy~~.

5-10. (cancelled)

11. (New) The apparatus of claim 1, wherein the first detector comprises a single probe projecting into the vacuum chamber adjacent a plasma formation space.

12. (New) The apparatus of claim 11, further comprising a device for monitoring a current density, said device being electrically connected to the single probe and to the controller.

13. **(New)** The apparatus of claim 3, wherein the first detector comprises a single probe projecting into the vacuum chamber adjacent a plasma formation space.

14. (New) The apparatus of claim 13, further comprising a device for monitoring a current density, said device being electrically connected to the single probe and to the controller.

15. **(New)** The apparatus of claim 14, wherein the electrode is an annular monitoring electrode provided around the table.

16. (New) The apparatus of claim 1, wherein the controller controls both of the first and second high frequency electric power sources according to the condition of the plasma detected by the first detector and the voltage or the current detected by the second detector.

17. (New) The apparatus of claim 3, wherein the controller controls both of the first and second high frequency electric

power sources according to the condition of the plasma detected by the first detector and the voltage or the current detected by the second detector.